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WPNSSB

PS1MN-C
POWER SUPPLY

1. GENERAL. This procurement requires a constant-voltage, constant-current dc power supply.

2. CLASSIFICATION. Type II, Class 5, Style E, and Color R in accordance with MIL-T-28800 for shipboard applications.

3. OPERATIONAL REQUIREMENTS. The equipment shall be capable of operation within the minimum accuracies, limits, and specifications set forth below. All operating specifications are applicable throughout the temperature range of 0 to 50 degrees C.

3.1 Output voltage and current. Continuously adjustable from 0 to 150 Vdc, 0 to 12A. Maximum power output is limited to 1200W. When maximum voltage (150V) is required from the equipment, 8A of current shall be available. When maximum current (12A) is required, 100V shall be available.

3.1.1 Load regulation. For no-load to full-load excursions: 120 mV voltage regulation, 32 mA current regulation.

3.1.2 Line regulation. For line-voltage variations of 10% : 60 mV voltage regulation, 25 mA current regulation.

3.1.3 Ripple and noise. 300 mVrms maximum.

3.1.4 Drift. For eight hours with constant line, load, and ambient temperature: 0.1% + 60 mV voltage regulation, 25 mA current regulation.

3.1.5 Transient recovery time. 2 ms for load variations of 10% or less.

3.2 Digital indicators. Output voltage and current. Accuracy: $\pm 1\%$ of indication. The indicators shall have a sufficient number of digits to resolve 1% of setting for both voltage and current.

3.3 Connectors. Three-way front- or rear-panel binding posts for positive output, negative output, and chassis ground connections.

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal power source requirements are invoked. Maximum power consumption: 1.4 kW.

4.2 Weight. 20 kg (44 lb) maximum.

4.3 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.